```
Horizontal Alignment Name: S LINE NORTH
               Description:
                      Style: Default
                                           STATION
                                                         NORTHING
                                                                          EASTING
Element: Linear
                                    10371+69.71
                                                                    6278426.56
              POB (
                                                       2202756.79
              TS (
                           )
                                      10435+50.99
                                                       2197814.58
                                                                       6282463.32
                               S 39<sup>14</sup>'30" E
         Tangent Direction:
             Tangent Length:
                                           6381.28
Element: Cosine
               TS (
                                      10435+50.99 2197814.58
                                                                    6282463.32
                                      10449+56.36 2196726.15
              SPI (
                                                                       6283352.34
               SC (
                                      10455+50.99
                                                    2196279.23
                                                                       6283744.81
            Entrance Radius:
                                          0.00
                Exit Radius:
                                         28000.00
                     Length:
                                          2000.00
                                         2<sup>02</sup>'47" Left
                      Angle:
                   Constant:
                                          7483.31
                                          1405.36
               Long Tangent:
              Short Tangent:
                                          594.79
                 Long Chord:
                                         1999.88
                                          1999.77
                          Ys:
                                            21.24
                           P:
                                              3.38
                           K:
                                            999.98
                                S 39<sup>1</sup>4'30" E
S 50<sup>4</sup>5'30" W
S 39<sup>5</sup>1'01" E
S 48<sup>4</sup>2'43" W
         Tangent Direction:
          Radial Direction:
            Chord Direction:
          Radial Direction:
                                  S 41<sup>1</sup>7'17" E
         Tangent Direction:
Element: Circular
                                      10455+50.99 2196279.23 6283744.81
               PI (
                                                      2194795.26 6285047.96
2214754.86 6304784.08
                                      10475+25.93
               CC (
               CS (
                                      10494+94.34
                                                      2193508.90
                                                                      6286546.51
                     Radius:
                                         28000.00
                                         8<sup>1</sup>04'09" Left
                      Delta:
                                        0^12'17"
 Degree of Curvature (Arc):
                     Length:
                                         3943.35
                    Tangent:
                                          1974.94
                       Chord:
                                           3940.09
           Middle Ordinate:
                                            69.39
                   External:
                                             69.56
                                   S 41^17'17" E
S 48^42'43" W
S 45^19'21" E
         Tangent Direction:
                                S 45^19'21" _
S 45^19'21" _
S 40^38'34" W
49^21'26" E
          Radial Direction:
            Chord Direction:
          Radial Direction:
         Tangent Direction:
Element: Cosine
              CS (
                                     10494+94.34 2193508.90 6286546.51
              SPI (
                                      10500+89.13
                                                    2193121.49 6286997.83
              ST (
                                      10514+94.34
                                                       2192244.78
                                                                      6288096.20
            Entrance Radius:
                                      28000.00
                Exit Radius:
                                              0.00
                                         2000.00
                     Length:
                                         2<sup>02'47</sup>" Left
                       Angle:
                   Constant:
                                          7483.31
               Long Tangent:
                                         1405.36
              Short Tangent:
                                           594.79
                                         1999.88
                 Long Chord:
                                           1999.77
                          Xs:
                                            21.24
                          Ys:
                           P:
                                              3.38
                           K:
                                           999.98
                                   S 49<sup>21</sup>'26" E
         Tangent Direction:
                                S 40<sup>38</sup>'34
S 50<sup>4</sup>7'42" E
          Radial Direction:
            Chord Direction:
          Radial Direction:
         Tangent Direction:
                                   S 51<sup>24</sup>'12" E
Element: Linear
                                      10514+94.34
                                                       2192244.78
                                                                       6288096.20
               ST
                  (
               TS
                                      10645+75.84
                                                       2184084.11
                                                                       6298320.14
```

Project Name: PACKAGE 1 8-17-2011

Description: S LINE

```
Tangent Direction: S 51^24'12" E Tangent Length: 13081.49
Element: Cosine
                                       TS ( ) 10645+75.84 2184084.11 6298320.14

SPI ( ) 10654+19.01 2183558.11 6298979.13

SC ( ) 10657+75.84 2183333.13 6299256.10

Entrance Radius: 0.00

Exit Radius: 70016.50

Length: 1200.00

Angle: 0^29'28" Right

Constant: 9166.23

Long Tangent: 843.17

Short Tangent: 356.83

Long Chord: 1200.00

Xs: 1199.99

Ys: 3.06
                                                                                                                                                           3.06

      Ys:
      3.06

      P:
      0.49

      K:
      600.00

      Tangent Direction:
      S 51^24'12" E

      Radial Direction:
      S 38^35'48" W

      Chord Direction:
      S 51^15'27" E

      Radial Direction:
      S 39^05'15" W

      Tangent Direction:
      S 50^54'45" E

                                                                                          Ys:
   lement: Circular

SC ( ) 10657+75.84 2183333.13 6299256.10

PI ( ) 10663+77.33 2182953.88 6299722.97

CC ( ) 2128987.48 6255110.19

CS ( ) 10669+78.80 2182566.67 6300183.25

Radius: 70016.50
Delta: 0^59'04" Right

Degree of Curvature(Arc): 0^04'55"

Length: 1202.96
Tangent: 601.49
Chord: 1202.95
Middle Ordinate: 2.58
External: 2.58
Tangent Direction: S 50^54'45" E
Radial Direction: S 39^05'15" W
Chord Direction: S 50^25'13" E
Radial Direction: S 40^04'19" W
Tangent Direction: S 49^55'41" E
Element: Circular
                               Cosine

CS ( ) 10669+78.80 2182566.67 6300183.25
SPI ( ) 10673+35.63 2182336.96 6300456.32
ST ( ) 10681+78.80 2181788.66 6301096.87

Entrance Radius: 70016.50
Exit Radius: 0.00
Length: 1200.00
Angle: 0^29'28" Right

Constant: 9166.23
Long Tangent: 843.17
Short Tangent: 356.83
Long Chord: 1200.00
Xs: 1199.99
Ys: 3.06
P: 0.49
K: 600.00

Tangent Direction: S 49^55'41" E
Radial Direction: S 49^34'59" E
Radial Direction: S 49^34'59" E
Radial Direction: S 49^26'13" E
Element: Cosine
Element: Linear
                                ST ( ) 10681+78.80
TS ( ) 10695+12.00
Tangent Direction: S 49^26'13" E
Tangent Length: 1333.20
                                                                                                                                                                                   2181788.66 6301096.87
2180921.70 6302109.69
Element: Cosine
                                               TS ( ) 10695+12.00 2180921.70 6302109.69

SPI ( ) 10709+17.36 2180007.82 6303177.33

SC ( ) 10715+12.00 2179605.16 6303615.10
                                        Entrance Radius: 0.00
Exit Radius: 28016.50
                                                                                                                                     2000.00
                                                                           Length:
```

```
^02'42" Right
                                           Angle:
                                                                                 7485.52
                                      Constant:
                          Long Tangent:
Short Tangent:
Long Chord:
                                                                                1405.36
                                                                                  594.79
                                                                                1999.88
                                                                                 1999.77
                                                  Ys:
                                                                                     21.23
                                                     P:
                                                                                       3.38
                                                    K:
                                                                                    999.98
                  Tangent Direction: S 49^26'13" E
Radial Direction: S 40^33'47" W
Chord Direction: S 48^49'44" E
Radial Direction: S 42^36'29" W
Tangent Direction: S 47^23'31" E
Element: Circular

      10715+12.00
      2179605.16
      6303615.10

      10725+68.61
      2178889.85
      6304392.77

      2158984.95
      6284648.51

      10736+24.23
      2178118.00
      6305114.36

                             SC (
                             PI (
  CC ( )
CS ( )
Radius:
Delta:
Degree of Curvature(Arc):
Length:
Tangent:
                                                                          10736+24.23
                                                                          28016.50
                                                                                4^19'11" Right
                                                                              0^12'16"
                                                                                2112.24
                                                                                 1056.62
                                           Chord:
                                                                                  2111.74
                      Middle Ordinate:
                                                                                      19.90
                                    External:
                                                                                      19.92
                  External: 19.92
Tangent Direction: S 47^23'31" E
Radial Direction: S 42^36'29" W
Chord Direction: S 45^13'56" E
Radial Direction: S 46^55'40" W
Tangent Direction: S 43^04'20" E
Element: Cosine

      10736+24.23
      2178118.00
      6305114.36

      10742+19.02
      2177683.51
      6305520.55

      10756+24.23
      2176623.31
      6306443.05

                            CS (
                      SFI ( )
ST ( )
Entrance Radius:
Exit Radius:
                                                                        28016.50
                          Exit Radius:
Length:
Angle:
Constant:
Long Tangent:
Short Tangent:
                                                                                         0.00
                                                                               2000.00
                                                                              2^02'42" Right
                                                                                7485.52
                                                                                1405.36
                                                                                  594.79
                                                                               1999.88
                                 Long Chord:
                                                  Xs:
                                                                                1999.77
                                                  Ys:
                                                                                    21.23
                                                     P:
                                                                                        3.38
                                                     K:
                                                                                   999.98
                  K: 999.98
Tangent Direction: S 43^04'20" E
Radial Direction: S 46^55'40" W
Chord Direction: S 41^38'07" E
Radial Direction: S 48^58'22" W
Tangent Direction: S 41^01'38" E
Element: Linear
                  ST ( ) 10756+24.23

POE ( ) 10907+58.91

Tangent Direction: S 41^01'38" E

Tangent Length: 15134.68
                                                                                                         2176623.31 6306443.05
                                                                                                          2165205.75
                                                                                                                                      6316377.72
```